## REMARKS

Entry of this response is proper under 37 CFR §1.116, since no new claims or issues are raised herein.

Claims 1-47, 49, 51-55, 57, and 58-64 are all of the claims pending. Claims 48, 50, 56, and 58 are canceled. Various claims are amended to better conform to local preferences of practice.

It is noted that the claim amendments herein, if any, are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims, or for any statutory requirements of patentability.

Further, it is noted that, notwithstanding any claim amendments made herein, Applicants' intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Claims 1-47, 49, 51-55, 57, and 59-64 stand rejected under 35 USC §103(a) as unpatentable over US Patent Publication US 2006/0166653A1 to Xu et al., further in view of US Patent Application Publication 2001/0034231 to Palat al.

This rejection is respectfully traversed in view of the following discussion, since the Examiner continues to miss the point of the plain meaning of the claim language, so that elements of even the independent claims are not satisfied even if the two cited references were considered properly combinable.

Applicants gratefully acknowledge Examiner Faroul for courtesies extended during the telephone interview conducted on January 8, 2009, wherein Applicants' representative explained that the present invention differs from the two cited references at least in the detail described in the final two limitations of the independent claims. That is, in the claimed invention, the SCCP signaling connection is initiated in the core network (CN) for the multicast service but the SCCP signaling connection is initiated in the radio network controller (RNC) for packet data. This feature is demonstrated in step B3 of Figure 4 that shows the CN side as initiating the SCCP connection request (CR). It is well known in the art that the RNC initiates the SCCP signaling for the packet data communication.

In contrast, at best, both primary reference Xu and secondary reference Palat disclose that the RNC initates an SCCP signaling connection, although this detail would appear to be below the level of detail discussed in these two references.

Examiner Faroul indicated that she would review the Applicants' comments during

her next evaluation and requested that claims 21-26 be amended to reflect "computer-readable" rather than "machine-readable", which change has been incorporated in the above claim amendments.

## I. THE CLAIMED INVENTION

As described and claimed in, for example, independent claim 1, the present invention is directed to a mobile communication system including a core network having a node with a packet switching function for packet data communication, a radio network controller, and a mobile terminal. A Signaling Connection Control Part (SCCP) signaling connection for the packet data communication and a broadcast or multicast service is set on an interface between the radio network controller and the core network. The mobile communication system further includes a connection setting means for setting the SCCP signaling connection between the radio network controller and the core network for multicast data communication separately from the SCCP signaling connection for the packet data communication.

The radio network controller initiates the SCCP signaling connection for the packet data communication, and the core network initiates the SCCP signaling connection for the broadcast or multicast service.

In the conventional method described beginning at line 15 on page 1 of the disclosure and more particularly at line 5-18 of page 5, the sharing of the PS service and the new, high-speed MBMS service causes processing contention as well as complexity in processing in the SGSN of the core network, as described beginning at line 19 of page 5.

In contrast, the present invention sets the connection for PS and MBMS separately, thereby eliminating the contention and reducing complexity.

## II. THE PRIOR ART REJECTION

The Examiner alleges that Xu, when modified by newly-cited Palat, renders obvious the present invention described by claims 1-47, 49, 51-55, 57, and 58-64. Applicants respectfully disagree, as follows.

First, as explained during the above-referenced telephone interview, both of the cited references Xu and Palat disclose, at best, that the RNC initiates an SCCP signaling connection (since it is well known by a person skilled in the art that packet data communication is initiated by the RNC) and do not disclose or suggest that a CN initiates the SCCP signaling connection for a broadcast or multicast service.

In contrast, in the present invention, the CN initiates to set up the SCCP signaling connection between the RNC and the CN for the multicast service. Moreover, it is noted that Xu relates to establishing an RAB (Radio Access Bearer), whereas the claimed invention relates to establishing the connection for signaling between the RNC and the CN.

Establishing the RAB is performed on the assumption that a signaling connection has been set up between the RNC and the CN. Therefore, establishing the RAB is quite different from establishing the signaling connection.

Turning now to the latest rejection of record and addressing the Examiner's contention in paragraph 2 on page 2 of this Office Action, Applicants respectfully bring to the Examiner's attention that the holding of *In re Keller* applies only for the facts of that case and does not properly relax the Examiner's initial burden of demonstrating a proper obviousness rejection, wherein the Examiner must articulate a reasonable rationale for modifying the primary reference (e.g., Xu) to satisfy the limitations of the claimed invention, as is clear from the relatively recent US Supreme Court holding in *KSR*. Typically, in the electronic arts, such motivation would be the demonstration by the USPTO that the differences between the primary reference Xu and the claimed invention is either a substitution or an improvement that was known in the art at the time of the invention.

That is, it is noted that, in the facts of *Keller*, the primary difference at issue in that case was the use of a digital timer in a heart pacer rather than an analog timer. The Court held that the combination of cited references was appropriate and adequate to demonstrate all the claimed elements, thereby establishing a *prima facie* obviousness rejection and shifting the burden back to the applicant for rebuttal. The wording upon which the Examiner relies from this holding is directed to inventor Keller's attempt at rebuttal, wherein Keller's declaration commented only on one of the two cited references but did not address the second, more significant reference.

These facts are not present in the present evaluation, since Applicants disagree that all elements of the claimed invention have been demonstrated by the rejection of record, disagree that the differences have been properly recognized in this rejection, and also disagree that a proper rationale to modify primary reference Xu has been presented in this rejection.

In contrast to the claimed invention, Xu does not teach or suggest the establishment of the SCCP signaling connection, which the Examiner concedes. Perhaps even more significant, contrary to the Examiner's characterization, Applicants respectfully traverse that

the rejection of record has even made an attempt to identify that Xu has separate connections for the packet data communications and the multicast data communications between the radio network controller and the core network, as clearly required by the independent claims. Furthermore, Xu, even if modified by secondary reference Palat, does not teach or suggest that the SCCP signaling connection for multicast data communication is established separately from the SCCP signaling connection for a packet data communication, let alone having the SCCP signal connection initiated by the radio network controller for the packet data and having the SCCP signal connection initiated by the core network for the broadcast or multicast service. Finally, Applicants submit that there is no articulation in the rejection of record of a reasonable motivation to modify Xu for these deficiencies.

In the bottom paragraph on page 3 of the latest Office Action, the Examiner alleges that Xu demonstrates separate connections for data packets and multicast. However, this description in Xu upon which the Examiner relies, by itself, is not sufficient to satisfy the plain meaning of the language of the claimed invention of the independent claims, since there is only a single path shown in Xu between the SGSN 123 of the core network 120 and the radio network controller 112 of the radio access network 110. The claimed invention clearly requires that a separate path for the data packets and the multicast service, and this feature is clearly not demonstrated in Xu, contrary to the Examiner's implied characterization.

Therefore, as an initial failure of providing a *prima facie* rejection, this separate path between the radio network controller and the core network constitutes an element of the claimed invention that has not been demonstrated in the rejection of record, even if these two references were to be somehow combined.

Moreover, at best, the rejection of record merely demonstrates that secondary referemce Palat, as described in paragraph [0028] uses an SCCP connection between its radio network controller 14a (RNC) and its VC-SGSN 30, which can be commonly used for packet and voice services. There is no attempt to articulate how Xu would benefit from this modification, nor would this modification, if somehow considered to be a reasonable improvement for Xu, provide all the elements of the claimed invention described by even the independent claims.

However, as noted above, even if Palat were properly combinable with Xu, the separate paths for the packet data and the multicast data is not taught or suggested in either Xu or Palat.

Therefore, Applicants again respectfully submit the rejection of record has not

established a *prima facie* obviousness rejection, since the elements of the claimed invention are not properly recognized in this rejection, because these elements are not demonstrated even if these two references were to be somehow combined, and because there is no reasonable rationale to modify Xu in the rejection currently of record.

Moreover, relative to the second distinction wherein the Examiner concedes that primary reference Xu fails to demonstrate SCCP, Applicants again submit that the Examiner has not met the initial burden of a prima facie obviousness rejection, since there is no demonstration that the SCCP connection of secondary reference

Rather, Xu (paragraph 0046) indicates that an RNC initiates to set up a radio resource between an RNC and an UE in response to a message from the UE, but does not teach or suggest setting up the SCCP signaling connection between the RNC and the CN (including the SGSN).

Xu (paragraph 0042) indicates that the CN initiates an RAB assignment but does not teach or suggest that the CN initiates to set up the SCCP signaling connection. Therefore, the above claim amendments clearly distinguish between the RAB assignment in Xu from the SCCP signaling connection of the present invention.

In the present invention, the CN initiates to set up the SCCP signaling connection between the RNC and the CN. It is noted that Xu relates to establishing an RAB (Radio Access Bearer), whereas the present invention relates to establishing the connection for signaling between the RNC and the CN.

Moreover, establishing the RAB is performed on the assumption that a signaling connection has been set up between the RNC and the CN. Therefore, establishing the RAB is quite different from establishing the signaling connection. The RAB is established according to an RANAP (Radio Access Network Application Part) protocol and the signaling connection is established according to a SCCP protocol. The RANAP protocol is a protocol located at a higher level than the SCCP protocol in a protocol hierarchy. Therefore, as described above, establishing the RAB according to the RANAP protocol is on the assumption of establishing the signaling connection according to the SCCP protocol.

According to the present invention, the SCCP signaling connection for the MBMS service is provided separately from the SCCP signaling connection for the packet data communication, so that occurrence of contention between the MBMS service and the packet data service is eliminated, and particularly providing an effect that it is no longer necessary to check into establishment statuses of signaling connections of other services.

Hence, turning to the clear language of the claims, in primary reference Xu, even if modified by Palat, there is no teaching or suggestion of: "... connection setting means for setting the SCCP signaling connection between the radio network controller and the core network for multicast data communication separately from the SCCP signaling connection for the packet data communication, wherein, said radio network controller initiates the SCCP signaling connection for the packet data communication, and said core network initiates the SCCP signaling connection for the broadcast or multicast service", as required by independent claim 1. Independent claims 9, 15, and 21 have similar language.

Relative to independent claims 27, 33, and 39, the Examiner alleges that paragraph [0040] teaches the feature defined by the final claim limitation that the multimedia broadcast multicast service requests are initiated by the core network rather than the radio network controller. Applicants respectfully submit that paragraph [0040] does not support support the Examiner's position, since the most related description in this paragraph would seem to be: "*As a result of these two phases, an MBMS context is defined and stored in the network.*"

This description does not satisfy the plain meaning of the language of the final claim limitation, since there is no suggestion that connections be made differently for multimedia broadcast multicast service requests in this description or anywhere else in this paragraph.

Hence, turning to the clear language of the claims, in Xu there is no teaching or suggestion of: "... wherein, if a request is related to multimedia broadcast multicast service, said core network initiates a request for SCCP signaling connection to said radio network controller, instead of the request being initiated from said radio network controller", as required by claim 27. Independent claims 33, 39, and 45 have similar language.

Relative to independent claim 53, the Examiner points to paragraph [0046] for the final claim limitation.

Applicants respectfully submit that this paragraph would not seem to support the Examiner's position, since the most related sentences in this paragraph would seem to be: "When the first timer expires and the relevant RNC receives the first response to the member ship query (step 214), the said RNC can either initiate the setting up of radio resources immediately or it can wait for more responses to arrive. When the responses(s) received within an individual cell meet(s) certain predetermined criteria, the RNC initiates the setting up of radio resources for that cell."

However, this description does not satisfy the plain meaning of the language of the final claim limitation, since there is no suggestion that connections be made differently for

multimedia broadcast multicast service requests in this description or anywhere else in this paragraph.

Hence, turning to the clear language of the claims, in Xu there is no teaching or suggestion of: "...setting a first Signaling Connection Control Part (SCCP) signaling connection for said mobile terminal on an interface between said core network and said radio network controller; and setting a second SCCP signaling connection for a broadcast or multicast service separately from said first SCCP signaling connection on said interface, wherein the radio network controller initiates said first SCCP signaling connection for said mobile terminal, and the core network initiates said second SCCP signaling connection for the broadcast or multicast service", as required by claim 53.

Relative to independent claim 61, the Examiner points to paragraph [0046] for the final claim limitation.

Applicants respectfully submit that this paragraph would not seem to support the Examiner's position, since the most related sentences in this paragraph would seem to be: "When the first timer expires and the relevant RNC receives the first response to the member ship query (step 214), the said RNC can either initiate the setting up of radio resources immediately or it can wait for more responses to arrive. When the responses(s) received within an individual cell meet(s) certain predetermined criteria, the RNC initiates the setting up of radio resources for that cell."

However, this description does not satisfy the plain meaning of the language of the final claim limitation, since there is no suggestion that connections be made differently for multimedia broadcast multicast service requests in this description or anywhere else in this paragraph.

Hence, turning to the clear language of the claims, in Xu there is no teaching or suggestion of: "...wherein a first Signaling Connection Control Part (SCCP) signaling connection for said mobile terminal and a second SCCP signaling connection for a broadcast or multicast service is set on an interface between said core network and said radio network controller, said radio network controller initiates the first SCCP signaling connection for said mobile terminal, and said core network initiates a request for said second SCCP signaling connection to said radio network controller", as required by claim 61.

Relative to independent claim 62, the Examiner points to paragraph [0046] for the final claim limitation.

Applicants respectfully submit that this paragraph would not seem to support the

Examiner's position, since the most related sentences in this paragraph would seem to be: "When the first timer expires and the relevant RNC receives the first response to the member ship query (step 214), the said RNC can either initiate the setting up of radio resources immediately or it can wait for more responses to arrive. When the responses(s) received within an individual cell meet(s) certain predetermined criteria, the RNC initiates the setting up of radio resources for that cell."

However, this description does not satisfy the plain meaning of the language of the final claim limitation, since there is no suggestion that connections be made differently for multimedia broadcast multicast service requests in this description or anywhere else in this paragraph.

Hence, turning to the clear language of the claims, in Xu there is no teaching or suggestion of: "...wherein a first Signaling Connection Control Part (SCCP) signaling connection for said mobile terminal and second SCCP signaling connection for a broadcast or multicast service are set on an interface between said core network and said radio network controller, said radio network controller initiates the first SCCP signaling connection for said mobile terminal, said core network comprises an SGSN (Serving GPRS (Global Packet Radio Service) Support Node), and wherein said SGSN manages said second SCCP signaling connection", as required by claim 62.

Relative to independent claim 63, the Examiner points to paragraph [0046] for the final claim limitation.

Applicants respectfully submit that this paragraph would not seem to support the Examiner's position, since the most related sentences in this paragraph would seem to be: "When the first timer expires and the relevant RNC receives the first response to the member ship query (step 214), the said RNC can either initiate the setting up of radio resources immediately or it can wait for more responses to arrive. When the responses(s) received within an individual cell meet(s) certain predetermined criteria, the RNC initiates the setting up of radio resources for that cell."

However, this description does not satisfy the plain meaning of the language of the final claim limitation, since there is no suggestion that connections be made differently for multimedia broadcast multicast service requests in this description or anywhere else in this paragraph.

Hence, turning to the clear language of the claims, in Xu there is no teaching or suggestion of: "...a step of setting a first Signaling Connection Control Part (SCCP) signaling

connection for a first communications service on an interface between said core network and said radio network controller; and a step of setting a second SCCP signaling connection for a second communications service and said core network initiates a request for said second SCCP signaling connection to said radio network controller", as required by claim 63.

Relative to independent claim 64, the Examiner points to paragraph [0046] for the final claim limitation.

Applicants respectfully submit that this paragraph would not seem to support the Examiner's position, since the most related sentences in this paragraph would seem to be: "When the first timer expires and the relevant RNC receives the first response to the member ship query (step 214), the said RNC can either initiate the setting up of radio resources immediately or it can wait for more responses to arrive. When the responses(s) received within an individual cell meet(s) certain predetermined criteria, the RNC initiates the setting up of radio resources for that cell."

However, this description does not satisfy the plain meaning of the language of the final claim limitation, since there is no suggestion that connections be made differently for multimedia broadcast multicast service requests in this description or anywhere else in this paragraph.

Hence, turning to the clear language of the claims, in Xu there is no teaching or suggestion of: "...setting a first Signaling Connection Control Part (SCCP) signaling connection for said mobile terminal on an interface between said core network and said radio network controller; and setting a second SCCP signaling connection for a broadcast or multicast service on said interface, wherein the radio network controller initiates said first SCCP signaling connection for said mobile terminal, and said core network comprises a SGSN (Serving GPRS (Global Packet Radio Service) Support Node), and said SGSN manages said second SCCP signaling connection", as required by claim 64.

Therefore, for the reasons stated above, the claimed invention is fully patentable over the cited references, and the Examiner is respectfully requested to reconsider and withdraw this rejection based on Xu.

## III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-47, 49, 51-55, 57, and 58-64, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to

RECEIVED
CENTRAL FAX CENTER
FEB 0 4 2009



pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 02/04/09

Frederick E. Cooperrider
Registration No. 36,769

**McGinn Intellectual Property Law Group, PLLC**
8321 Old Courthouse Road, Suite 200
Vienna, VA 22182-3817
(703) 761-4100
**Customer No. 21254**

CERTIFICATION OF TRANSMISSION

I certify that I transmitted via facsimile to (571) 273-8300 this Amendment under 37 CFR §1.116 to Examiner F. Faroul on February 4, 2009.

Frederick E. Cooperrider
Reg. No. 36,769